Overview

Also Known As: Grin2b flox

This Grin2b<sup>flox</sup> CRISPR/Cas9 generated mutant of the Grin2b gene possesses loxP sites flanking 599 nucleotides (exon 4 of...
Ensembl transcript 201 and exon 5 of transcript 202). This strain may be useful for generating conditional mutations in applications related to neurodevelopment.

Donating Investigator
Cathleen Lutz, The Jackson Laboratory

Gene Symbol: Grin2b
Gene Name: glutamate receptor, ionotropic, NMDA2B (epsilon 2)

CRISPR/cas9 endonuclease mediated genome editing of the Grin2b, glutamate receptor, ionotropic, NMDA2B (epsilon 2), gene was used to introduce loxP sites flanking 599 nucleotides (exon 4 of Ensembl transcript 201 and exon 5 of transcript 202). The targeted Grin2b gene encodes part of the excitatory neurotransmitter N-methyl-D-aspartate (NMDA) receptor. Mutations in this gene have been associated with Mental Retardation, Autosomal Dominant 6, with or without Seizures and Early Infantile Epileptic Encephalopathy 27. Mice that are homozygous for this allele are viable and fertile. When these mutant mice are bred to mice that...
express Cre recombinase, resulting offspring will have loxP site flanked region deleted in the cre-expressing tissues. As the mice are characterized, we will modify the strain description and add phenotype data.

This model was generated in collaboration with the Simons Foundation Autism Research Initiative (SFARI).

**Development**

**Control Suggestions**

**Genetics**

### **Grin2b**

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**References**

**Technical Support**

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**Genotyping Protocols**

Probe: Edil3 Tg(Sox2-cre)1Amc

Probe: Grin2b em5Lutzy (5'Loxp)

Genotyping resources and troubleshooting

**Breeding Considerations**

When maintaining a live colony, these mice can be bred as homozygotes. **Additional Breeding and Husbandry Support**

**Mating System**

Homozygote x Homozygote

**Citation**

When using the Grin2b flox mouse strain in a publication, please cite the originating article(s) and include JAX stock #032664 in your Materials and Methods section.

**Animal Health Reports**

**Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200**
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

### Cryo Recovery

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Grin2b&lt;em5Lutzy&gt;</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

### Cryorecovery to establish a Dedicated Supply

Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

### Payment Terms and Conditions

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**General Terms and Conditions**

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